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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,540	10/17/2005	Uwe Krauss	1356-00025-US	4127

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EXAMINER	
ROBINSON, CHANCEITY N	

ART UNIT	PAPER NUMBER
1795	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,540	KRAUSS ET AL.	
	Examiner	Art Unit	
	CHANCEITY N. ROBINSON	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-18* is/are rejected.

7)☒ Claim(s) *19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim19 is objected to because of the following informalities: clam 19 was not canceled in the preliminary amendments submitted in 10/17/2005. However, claim 19 did not appear on the claims submitted on 10/17/2005. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-2, 4-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Du Pont et al. (GB 1579817) in view of Tabora (US 2004/0060647 A1).

Regarding claim 1, Du Pont et al. disclose a process of photopolymerizable cylindrical continuously seamless flexographic printing plate (element) by application of a layer of a photopolymerizable material (a light sensitive layer), comprising at least one elastomeric binder (synthetic elastomer binder), ethylenically unsaturated monomers (photopolymerizable compound or photocrosslinkable composition) and a photoinitiator (photoinitiator system), to the outer surface of a hollow cylinder (sleeve) and joining of the layer ends by calendaring (page 1,lines 16-22, page 2,lines 39-41 and figures 5-8), wherein the process comprises the following steps: a) providing a laminate (protective film) at least comprising a light-hardenable layer (photopolymerizable layer material) and substrate (film support) which can be peeled (removed) off from the layer (page 3,lines 50-62);b) cutting the edges of the laminate to be joined to size by trimming (bevel cuts; page 4,lines 4-6);c) pushing the hollow cylinder (sleeve) onto a rotatably mounted support cylinder (printing cylinder) and locking it thereon (page 4,lines 24-35);d) applying an adhesion-promoting layer (two-sided adhesive tape) to the outer surface of the hollow cylinder (sleeve; page 4,ines 36-38); e) applying the laminate curt to size from the temporary substrate film, to the hollow cylinder provided with the two-sided adhesive tape, the ends with the trim cut (page 4,lines 4-40); f) removing (peeling) off the substrate film (film support) form the light-hardenable material layer (page 3,lines 60-62); g) joining the edges at a temperature below the melting point of the light-hardenable material layer by bringing the surface of the light-hardenable material layer (photopolymerizable layer) on the hollow cylinder (sleeve) into contact with a rotating calender roll until the cut edges are

joined to one another (page 2,lines 42-64); and h) removing the processed hollow cylinder (sleeve) from the support cylinder (claim 5 and page 2,lines 110-114).

Further regards to claim 1, Du Pont et al. do not explicitly disclose cutting the edges by the means of bevel cuts and the ends of the bevel cut substantially resting against one another but not overlapping. However Tabora discloses a method utilizes a flexographic printing cylinder or print sleeve , whereby a cutting tool such as a knife, blade, straight edge or laser can be drawn across the printing cylinder or print sleeve to cut a portion of the printing plate that is mounted (abstract), More specifically, Tabora discloses it is suitable for joining the edges of the photopolymerizable printing plates by micro-cutting at an angle relative (bevel cut) to the perpendicular of the cylinder or print sleeve (paragraphs [0009-0010]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a bevel cut as the trimmed cut to the photopolymerizable flexographic printing element of Du Pont et al., because Tabora reference teaches the use cut result in the plate ends that align such that the break in the plate is minimized.

Regarding claim 2, Du Pont et al. disclose the adhesion-promoting layer is a double-sided adhesive film (page 2, lines 28-32).

Regarding claim 4, Du Pont et al. disclose the layer of light-hardenable material (photopolymerizable material layer) comprises a further peelable film (protective film) of the side of layer which faces from the substrate film (film support), which peelable film (protective film) is peeled (removed) off before the process step (e) by said applicant (page 3,lines 54-62).

Regarding claims 5-6, Du Pont et al. disclose the layer of the light-hardenable material (layer of photopolymerizable material) is preexposed to UV radiation (actinic light) , directly or through the further peelable film (covering film), from the side facing away from the substrate film (film support; page 3,lines 63-69).

Regarding claim 7, Du Pont et al. disclose the coated hollow cylinder (sleeve) rotates during calendaring in the same direction as direction represented by (7) by said applicant (figure 6).

Regarding claim 8, Du Pont et al disclose the temperature of the plate surface during calendaring is from 100 to 120°C (page 2,lines 15-20), which meets the limitation of the present application of from 80 to 130°C.

Regarding claim 9, Du Pont et al. disclose the support cylinder is an air cylinder (page 4, lines 89-93).

Regarding claim 12, Du Pont et al. disclose a cylindrical, continuously seamless, photopolymerizable flexographic printing plate obtainable by the process (page 1, lines 11-15 and figure 4).

5. Claims 10-11 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Du Pont et al. (GB 1579817) in view of Tabora (US 2004/0060647 A1) as applied to claims 1-2, 4-9 and 12 above, and further in view of Cushner et al. (US 5,916,403).

Regarding claims 10-11, 13-14 and 17, Du Pont et al. disclose cylindrical continuously seamless photopolymerizable flexographic printing plate is exposed

imagewise through a suitable transparency (mask) and then processed in a wash-out solution comprising a solvent; a relief image is obtained to the imagewise exposure by UV radiation (means of a laser) of the printing plate (page 1, lines 16-34). However, Du Pont et al. do not explicitly disclose a digital imageable layer is applied to the light-hardenable material layer (photopolymerizable layer). Nevertheless, Cushner et al. disclose the use of a digitally imageable layer (radiation-opaque material layer in the infrared sensitive layer) is on top of the photopolymerizable layer. Also the cylindrical flexographic printing plate is overall exposes the photosensitive element to actinic radiation through a mask, signifying imagewise exposure of the element (column 15,lines 45-66). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a digital imageable layer to the photopolymerizable layer of Du Pont et al., because Cushner et al. teach the digital imageable layer prevents the material beneath from being exposed to the radiation and hence those areas by the radiation opaque material do not polymerize.

Regarding claim 15, Du Pont et al. disclose the development of the exposed layer is carried out by means of a solvent solution (page 3, lines 120-125).

Regarding claim 16, Du Pont et al. disclose the development of the exposed layer is carried out by a chemical treatment (thermally; page 3, lines 125-127).

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Du Pont et al. (GB 1579817) in view of Tabora (US 2004/0060647 A1) as applied to claims 1-2,

4-9 and 12 above, and further in view of Cushner et al. as applied to claims 10-11 and 13-17 above and further in view of Bode et al. (US 2002/0018857 A1).

Du Pont et al. and Cushner et al. do not appear to explicitly disclose the laser or lasers properties as defined in claim 18. Bode et al. teach a method for the use of the flexographic printing element for the production of continuously seamless flexographic printing plate comprising of a photopolymerizable layer which is engraved by a laser, wherein the laser or laser have an absorption in the wavelength range between 750 to 20000 nm [0041, 0048, 0055-56]. Therefore, it is obvious to one of ordinary skill in the art to use a laser with a wavelength ranging from 750 to 20000 nm in the process of Cushner et al. and Du Pont et al., because Bode teaches the use of a laser aids in the result the flexographic printing cylinder can be post-exposed and/or chemically or physically treated in any sequence to prepare a non-tacky printing surface.

Response to Arguments

7. Applicant's arguments see pages 1-3, filed 07/29/2008, with respect to claims 1-2 and 4-18 have been fully considered and are persuasive. The FINAL 103(a) rejections of 05/22/2008, office action have been withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHANCEITY N. ROBINSON whose telephone number is (571)270-3786. The examiner can normally be reached on Monday to Thursday: 7:30 am-5:30 pm eastern time. If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chanceity N Robinson/
Examiner, Art Unit 1795

/Cynthia H Kelly/
Supervisory Patent Examiner, Art Unit 1795